

	Type	L #	Hits	Search Text	DBs	Time Stamp
1	BRS	L1	2	jp-03283453-\$.did.	USPAT; EPO; JPO; DERWEN T; IBM_TD B	2002/08/30 09:54
2	BRS	L2	238	wille.xa.	USPAT; EPO; JPO; DERWEN T; IBM_TD B	2002/08/30 10:30
3	BRS	L3	1056	ferromagnetic and artificial	USPAT; EPO; JPO; DERWEN T; IBM_TD B	2002/08/30 10:42
4	BRS	L4	6	3 and 257/\$.ccls.	USPAT; EPO; JPO; DERWEN T; IBM_TD B	2002/08/30 10:31
5	BRS	L5	17	3 and (tunnel adj junction)	USPAT; EPO; JPO; DERWEN T; IBM_TD B	2002/08/30 11:35
6	BRS	L6	13	5 and @ay<2000	USPAT; EPO; JPO; DERWEN T; IBM_TD B	2002/08/30 11:36

	Type	L #	Hits	Search Text	DBs	Time Stamp
1	BRS	L1	3363	ferromagnetic and hard and co	USPAT; EPO; JPO; DERWEN T; IBM_TD B	2002/08/30 06:24
2	BRS	L2	31	1 and 257/\$.ccls.	USPAT; EPO; JPO; DERWEN T; IBM_TD B	2002/08/30 06:24
3	BRS	L3	3	(magnetic adj tunnel adj junction) and yoke	USPAT; EPO; JPO; DERWEN T; IBM_TD B	2002/08/30 07:20
4	BRS	L4	137	(magnetic adj field adj sensor) and yoke	USPAT; EPO; JPO; DERWEN T; IBM_TD B	2002/08/30 07:40
5	BRS	L5	5	(magnetic adj field adj sensor) and (magnetic adj flux adj guide)	USPAT; EPO; JPO; DERWEN T; IBM_TD B	2002/08/30 07:41
6	BRS	L6	30	(magnetic adj sensor) and encapsulate	USPAT; EPO; JPO; DERWEN T; IBM_TD B	2002/08/30 07:50

CLIPPEDIMAGE= JP403283453A

PAT-NO: JP403283453A

DOCUMENT-IDENTIFIER: JP 03283453 A

TITLE: RESIN SEALED TYPE SEMICONDUCTOR DEVICE

PUBN-DATE: December 13, 1991

INVENTOR-INFORMATION:

NAME

OKA, TAKAHIRO

ASSIGNEE-INFORMATION:

NAME

OKI ELECTRIC IND CO LTD

COUNTRY

N/A

APPL-NO: JP02081036

APPL-DATE: March 30, 1990

INT-CL (IPC): H01L023/29;H01L023/28 ;H01L023/31

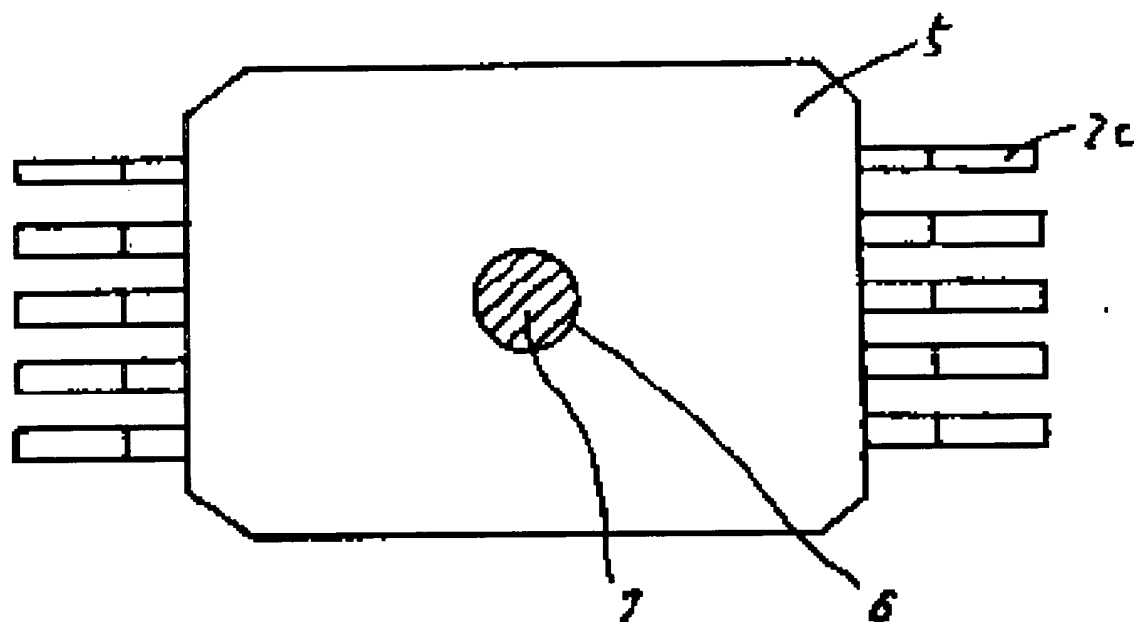
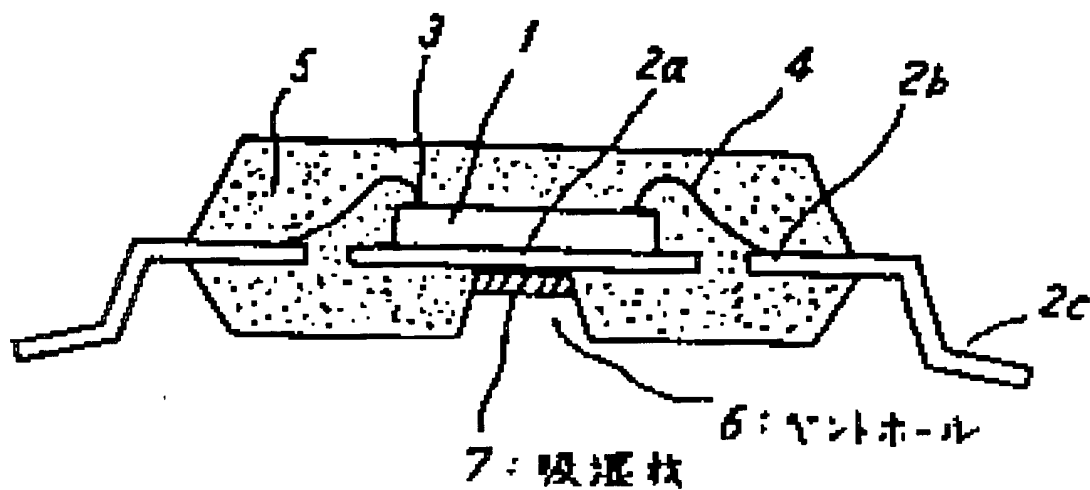
ABSTRACT:

PURPOSE: To enable moisture to be mainly absorbed by a moisture absorbing material as long as it stays working by a method wherein the moisture absorbing material much higher than a sealing resin in moisture absorbing property is bonded to the rear of the die pad exposed due to a vent hole.

CONSTITUTION: A semiconductor element 1 is fixed to a die pad 2a by bonding, a wiring pad 3 is connected to an inner lead 2b with a wire 4, all are sealed up with a sealing resin 5, and an outer lead 2c is formed. A vent hole 6 is provided to the rear center of the die pad 2a opposite to its die mounting side. A moisture absorbing material 7 much higher than a sealing resin 5 in moisture absorbing property is bonded to the rear of the

die pad exposed due to
the vent hole 6. As the moisture absorbing material 7
whose moisture absorbing
property is much higher than that of the sealing resin 7,
moisture contained in
the air is absorbed by the moisture absorbing material 7
and hardly absorbed by
the sealing resin 5. Until the amount of moisture exceeds
the moisture
absorbing capacity of the moisture absorbing material 7,
moisture concentrates
on the moisture absorbing material 7 provided to the rear
of the pad, so that
the rapid thermal expansion of moisture caused by soldering
heat is centered on
a vent hole provided to the rear of a die pad, in result
the vent hole works
most effectively.

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DERWENT-ACC-NO: 1992-036845
DERWENT-WEEK: 199205
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TITLE: Resin encapsulated semiconductor device with vent
hole - has moisture
absorbing material having higher absorption capacity than
resin and coloured by
absorption adhered at die pad exposed by hole

PATENT-ASSIGNEE: OKI ELECTRIC IND CO LTD[OKID]

PRIORITY-DATA: 1990JP-0081036 (March 30, 1990)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES	MAIN-IPC	
JP 03283453 A	December 13, 1991	N/A
000	N/A	

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
JP03283453A	N/A	1990JP-0081036
March 30, 1990		

INT-CL (IPC): H01L023/29

ABSTRACTED-PUB-NO: JP03283453A

BASIC-ABSTRACT: The composite magnet comprises cylindrical
outer shell
consisting of metal having sufficient strength and
maleability, in which
metallic materials exist.

At least one of the metallic materials comprises metallic
permanent magnet
material modified into filled-up material by plasticising
powder material. The
materials are closely attached to each other at the
interfaces which are
parallel to the centre axis line of the cylindrical shell.

In a cylindrical capsule consisting of metal having
sufficient strength and

maleability, partitions consisting of the filled-up metal, which have surfaces parallel to the centre axis line of the capsule, are inserted. In at least one of the other spaces, permanent magnet metal powder material is filled, and in the rest, appropriate metal powder or filling metal material is admitted. The capsule is closed, and hot or warm extrusion is applied.

USE/ADVANTAGE - The composite magnet is used for the magnetic sensor. The magnet is easily welded, soldered, or processed with machines. Vibration resistance and shock resistance of the magnet are improved.

CHOSEN-DRAWING: Dwg.1-3/4

TITLE-TERMS:

RESIN ENCAPSULATE SEMICONDUCTOR DEVICE VENT HOLE MOIST
ABSORB MATERIAL HIGH
ABSORB CAPACITY RESIN COLOUR ABSORB ADHERE DIE PAD EXPOSE
HOLE

DERWENT-CLASS: A85 L03 U11

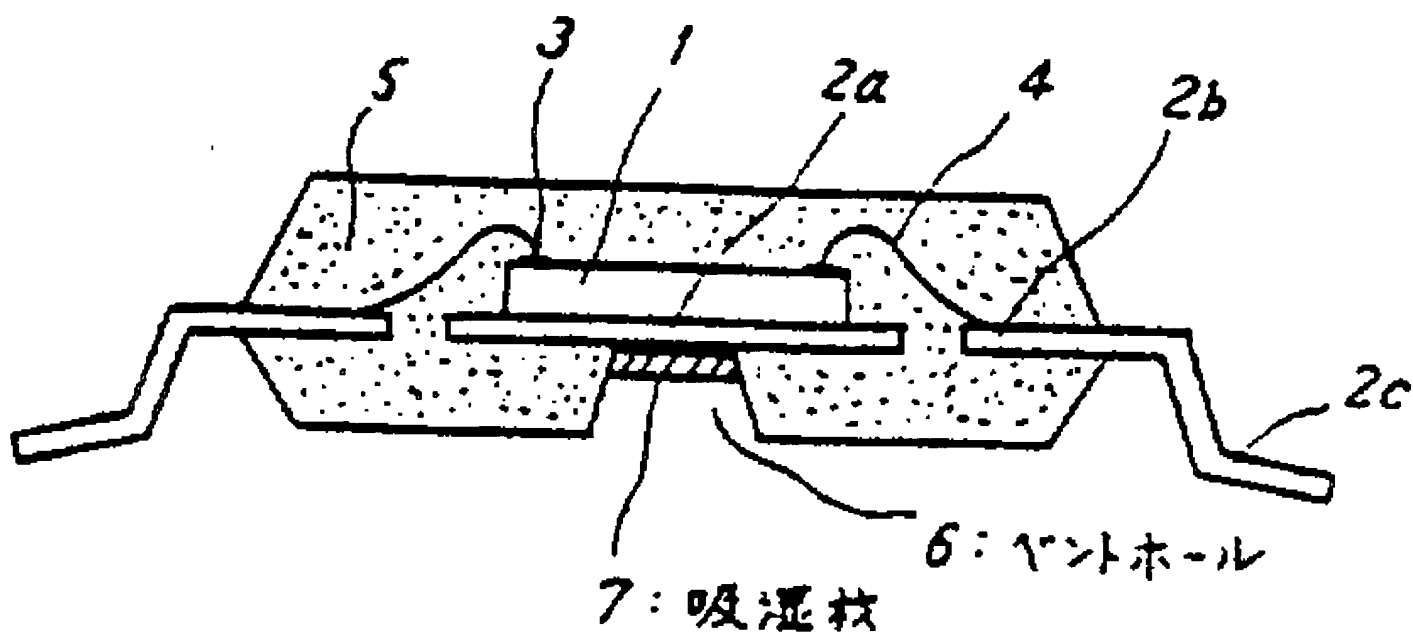
CPI-CODES: A12-E04; A12-E07C; L04-C20A;

EPI-CODES: U11-D01A3; U11-D01C9; U11-E02A;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1992-016277

Non-CPI Secondary Accession Numbers: N1992-028067



本発明の樹脂封止型半導体装置の断面図

第 1 図